



PATENT APPLICATION
Mo-6389
LeA 33,465

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF)
BURKHARD REITZE ET AL) GROUP NO.: 1714
SERIAL NUMBER: 09/868,126)
FILED: JUNE 14, 2001) EXAMINER: T. H. YOON
TITLE: NOVEL POLYMER BLENDS WITH)
MOULD-RELEASE AGENTS) RESPONSE TO PAPER NO.: 20031028
)
)
)

APPEAL BRIEF

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief, submitted in triplicate, is an appeal from the Final Office Action of the Examiner dated October 30, 2003 in which the rejections of Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30 were maintained.

I. REAL PARTY IN INTEREST

The real party in interest is Bayer AG.

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria, VA 22313-145 6/10/04

Date
James R. Franks - Reg. No. 42,552

Name of appellant, assignee or Registered Representative

Signature
June 10, 2004

Date

II. RELATED APPEALS AND INTERFERENCES

There are no other related appeals or interferences known to Appellants, Appellants' legal representative, or Appellants' assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

III. STATUS OF THE CLAIMS

Claims Pending:	1, 3-5, 7, 9, 12, 17-24, 29 and 30
Claims Canceled:	2, 6, 8, 10, 11, 13-16 and 25-28.
Claims Allowed:	None
Claims Withdrawn from Consideration:	None
Claims Appealed:	1, 3-5, 7, 9, 12, 17-24, 29 and 30

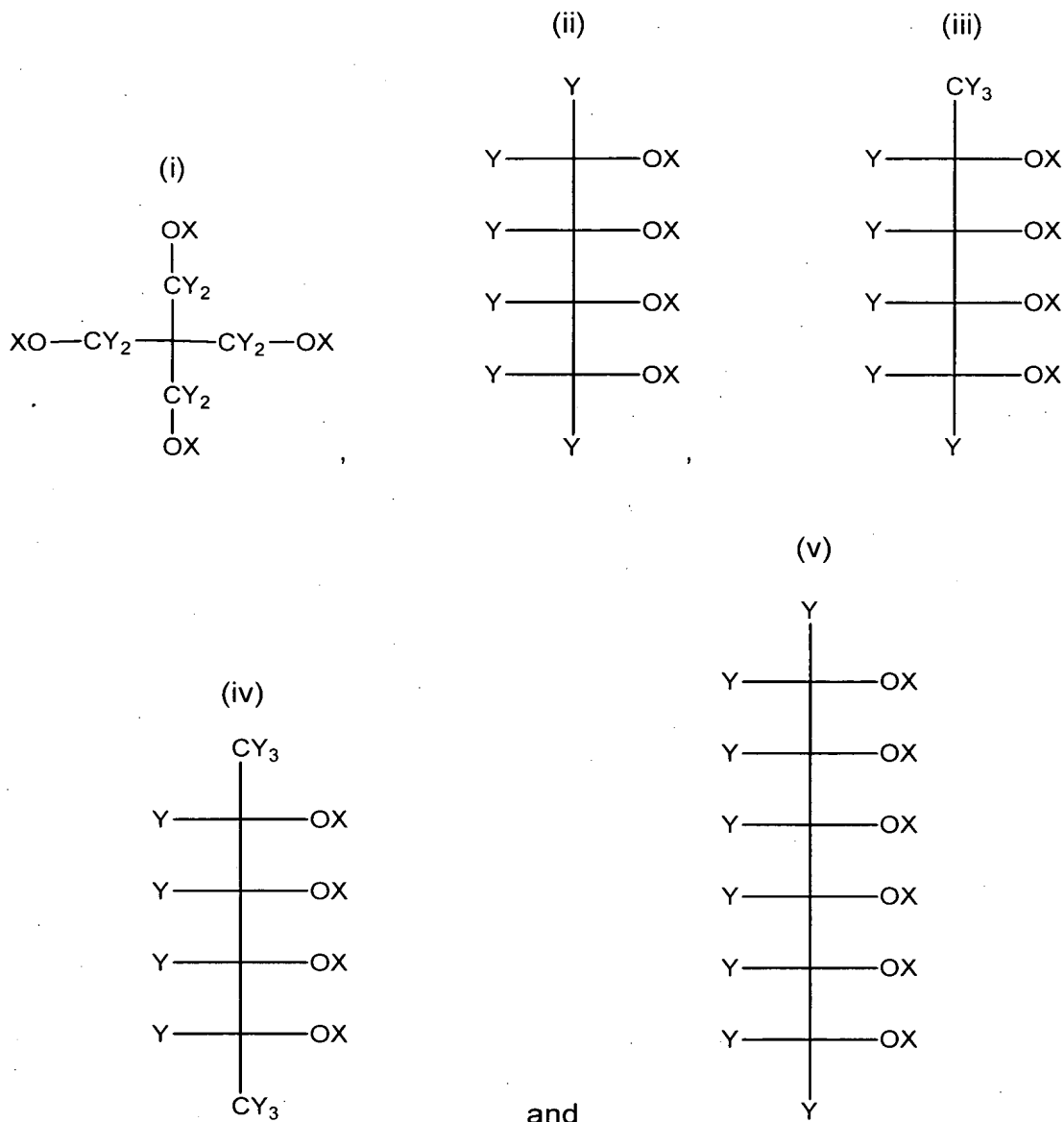
IV. STATUS OF AMENDMENTS

No amendment has been filed subsequent to the outstanding final rejection.

V. SUMMARY OF THE INVENTION

The present invention is directed to a thermoplastic polymer mixtures comprising:

- (a) at least one polycarbonate selected from the group consisting of copolymers of bisphenol A with trimethylcyclohexyl bisphenol containing 5 to 50 wt. % of trimethylcyclohexyl bisphenol; and
- (b) at least one mould release agent with at least one polyol component; wherein said polyol component (I) of said mould release agent is selected from at least one member of the group consisting of polyols represented by the following formulas,



X independently represents a hydrogen or an aliphatic acyl residue of an aliphatic carboxylic acid, and

Y independently represents a member selected from the group consisting of hydrogen, alkyl and aryl groups,

said polyol component (I) having esterified groups and free hydroxyl groups, the number of esterified groups and free hydroxyl groups of said polyol component (I) being the same.

VI. ISSUES

(I) Whether any of Claims 1, 3-5, 7, 9, 12, 17-24 and 30 are unpatentable under 35 U.S.C. §103(a) over United States Patent No. 4,131,575 (**Adelmann et al**) in view of United States Patent No. 5,710,204 (**Harke et al**).

(II) Whether any of Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30 are unpatentable under 35 U.S.C. §103(a) over Adelmann et al in view of Harke et al, and further in view of European Patent Application No. 0 511 640 (**Shimada**).

VII. GROUPING OF CLAIMS

Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30 are appealed together, and stand or fall together.

VIII. ARGUMENTS

(I) CLAIMS 1, 3-5, 7, 9, 12, 17-24 AND 30 ARE NOT RENDERED OBVIOUS BY ADELMANN ET AL IN VIEW OF HARKE ET AL.

The Examiner has taken the position that, under 35 U.S.C. §103(a), Claims 1, 3-5, 7, 9, 12, 17-24 and 30 are unpatentable over Adelmann et al in view of Harke et al. Appellants respectfully disagree with regard to Claims 1, 3-5, 7, 9, 12, 17-24 and 30.

Adelmann et al disclose thermoplastic molding materials of high molecular weight, thermoplastic, aromatic polycarbonates, and 0.01 to 0.1 wt.% of esters of C₁₀₋₂₀ saturated aliphatic carboxylic acids with 4- to 6-hydric alcohols (abstract). Adelmann et al discloses thermoplastic molding compositions. Adelmann et al do not disclose or suggest castable or curable compositions. Adelmann et al do not disclose, teach or suggest the presence of curable monomers, such as acrylic acid monomers and/or derivatives thereof, in their thermoplastic molding compositions.

Harke et al disclose a castable, curable (*i.e.*, thermosetting) composition that includes, (i) acrylic acid monomer and/or derivatives thereof, and (ii) a polycarbonate copolymer of bisphenol A and trimethylcyclohexyl bisphenol. See the abstract; column 1, line 44 through column 2, line 36; and column 3, lines 36-53 of Harke et al. The polycarbonate copolymer of bisphenol A and trimethylcyclohexyl bisphenol

is included in the curable compositions of Harke et al for purposes of improving the boiling resistance of cured plastic articles prepared therefrom (abstract). Harke et al do not disclose or suggest thermoplastic molding compositions.

Adelmann et al disclose thermoplastic molding compositions. Adelmann et al do not disclose or suggest the presence of curable monomers, such as acrylic acid monomers and/or derivatives thereof, in their thermoplastic molding compositions. Harke et al disclose castable, curable compositions that include acrylic acid monomers and/or derivatives thereof. Harke et al do not disclose or suggest thermoplastic molding compositions. The thermoplastic compositions of Adelmann et al can not be used as curable or castable molding compositions, as they are not curable. The curable, castable compositions of Harke et al can not be used as thermoplastic molding compositions, as they are curable and are not moldable in the absence of curing of the monomer component.

As such, neither Adelmann et al nor Harke et al provide the requisite disclosure that would motivate a skilled artisan to combine or otherwise modify their disclosures to arrive at Appellants' claimed thermoplastic polymer mixtures.

As the Court of Appeals for the Federal Circuit has stated, there are three possible sources for motivation to combine references in a manner that would render claims obvious. These are (1) the nature of the problem to be solved, (2) the teaching of the prior art, and (3) the knowledge of persons of ordinary skill in the art, *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The nature of the problem to be solved and the knowledge of persons of ordinary skill in the art are not present here and have not been relied upon in the rejection. As for the teaching of the prior art, the above discussion has established that neither of the patents relied upon in the rejection provide the requisite teaching, and certainly do not provide the motivation or suggestion to combine that is required by Court decisions.

The present rejection appears to use Appellants' specification as a blueprint for selecting and combining or modifying the cited references to arrive at Appellants' claimed invention, thereby making use of prohibited hindsight in the selection and application of those cited references. "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its

teacher." *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed.Cir.1983). It is essential that "the decisionmaker forget what he or she has been taught at trial about the claimed invention and cast the mind back to the time the invention was made ... to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art." *Id.* One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 1075 (CAFC, 1988).

But for the application of prohibited hindsight reconstruction, the combination of Adelmann et al and Harke et al would result in an inoperable curable/castable composition that includes curable acrylic acid monomers and/or derivatives thereof. Appellants' claimed composition is a thermoplastic composition that is neither curable nor castable, and does not include curable monomers, such as acrylic acid monomers and/or derivatives thereof.

On page 2 of the Office Action of 30 October 2003, it is argued that Appellants' choice of partial esters in their claimed thermoplastic polymer mixtures "is an anticipation" with reference to *In re Arkley*, 455 F.2d 586 (CCPA 1972) and *In re Petering*, 301 F.2d 676 (CCPA 1962). Appellants respectfully disagree. *In re Arkley* and *In re Petering* each stand for the proposition that a generic disclosure of compounds does not necessarily anticipate or render obvious a specific selection of compounds thereof. See *In re Arkley*, 455 F.2d at 587, and *In re Petering*, 301 F.2d at 683. Appellants respectfully submit that Adelmann et al's disclosure with regard to thermoplastic polycarbonate molding compositions containing 0.01 to 0.1 wt.% of esters of C₁₀₋₂₀ saturated aliphatic carboxylic acids with 4- to 6-hydric alcohols is so broad as to be neither anticipatory nor obvious-rendering relative to the specific selection of partially esterified polyols of Appellants' claimed thermoplastic polymer mixtures.

Further, Appellants submit that even if Adelmann et al is considered for all that it discloses, Adelmann et al either alone or in combination with Harke et al does not disclose, teach or suggest Appellants' claimed thermoplastic polymer mixtures, in light of the preceding discussion herein. As the Court of Customs and Patent Appeals has stated, "[w]e do not read into references things that are not there." *In re Arkley*, 455 F.2d at 589.

In light of the preceding remarks, Appellants' Claims 1, 3-5, 7, 9, 12, 17-24 and 30 are deemed to be patentable over Adelmann et al in view of Harke et al.

(II) CLAIMS 1, 3-5, 7, 9, 12, 17-24, 29 AND 30 ARE NOT RENDERED OBVIOUS BY ADELMANN ET AL IN VIEW OF HARKE ET AL AND FURTHER IN VIEW OF SHIMADA.

The Examiner has taken the position that, under 35 U.S.C. §103(a), Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30 are unpatentable over Adelmann et al in view of Harke et al and further in view of Shimada. Appellants respectfully disagree with regard to Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30.

Adelmann et al and Harke et al have each been discussed previously herein. Shimada discloses a molding composition which includes a polycarbonate having a specific viscosity range, and 0.001 to 0.1 pphr of a saturated monovalent fatty acid monoglyceride (abstract). The molding compositions of Shimada are disclosed as being useful in the fabrication of optical moldings, such as compact disks (page 2, lines 1-4).

Adelmann et al disclose thermoplastic molding compositions. Adelmann et al do not disclose or suggest the presence of curable monomers, such as acrylic acid monomers and/or derivatives thereof, in their thermoplastic molding compositions. Harke et al disclose castable, curable compositions that include acrylic acid monomers and/or derivatives thereof. Harke et al do not disclose or suggest thermoplastic molding compositions. The thermoplastic compositions of Adelmann et al can not be used as curable or castable molding compositions, as they are not curable. The curable, castable compositions of Harke et al can not be used as thermoplastic molding compositions, as they are not moldable in the absence of curing of the monomer component. Shimada discloses thermoplastic molding compositions. Shimada does not disclose or suggest the presence of curable monomers, such as acrylic acid monomers and/or derivatives thereof, in his thermoplastic molding compositions. The thermoplastic compositions of Shimada can not be used as curable or castable molding compositions, as they are not curable.

As such, neither Adelmann et al, Harke et al nor Shimada provide the requisite motivation that would lead one of ordinary skill in the art to combine or otherwise modify their disclosures. The three possible sources of motivation for combining references, as described by the Court of Appeals for the Federal Circuit and discussed previously herein, are not present: *In re Rouffet*, 47 U.S.P.Q.2d at 1458. The nature of the problem to be solved and the knowledge of persons of ordinary skill in the art are not present here and have not been relied upon in the rejection. As for the teaching of the prior art, the above discussion has established that none of the patents relied upon in the rejection provide the requisite teaching, and certainly do not provide the motivation or suggestion to combine that is required by Court decisions.

The present rejection appears to use Appellants' specification as a blueprint for selecting and combining or modifying the cited references to arrive at Appellants' claimed invention, thereby making use of prohibited hindsight in the selection and application of those cited references. As discussed previously herein, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d at 1075. See also the discussion previously herein with regard to *W.L. Gore & Assoc.*, 721 F.2d at 1553.

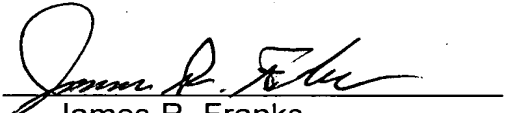
But for the application of prohibited hindsight reconstruction, the combination of Adelmann et al, Harke et al and Shimada would result in an inoperable curable/castable composition that includes curable acrylic acid monomers and/or derivatives thereof. As discussed previously Appellants' claimed composition is a thermoplastic composition that is neither curable nor castable, and does not include curable monomers, such as acrylic acid monomers and/or derivatives thereof.

As the combination of Adelmann et al and Harke et al does not result in Appellants' claimed thermoplastic polymer mixtures of Claims 1, 3-5, 7, 9, 12, 17-24 and 30, the proposed further combination with Shimada does not and can not render Claim 29 (which depends from Claim 1 through Claim 12) obvious.

In light of the preceding remarks, Appellants' Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30 are deemed to be patentable over Adelmann et al in view of Harke et al and further in view of Shimada.

In view of the remarks herein, Appellants' respectfully submit that their claimed thermoplastic polymer mixtures are not described, taught or fairly suggested by: (I) Adelmann et al in view of Harke et al; or (II) Adelmann et al in view of Harke et al and further in view of Shimada. Thus, Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner, and remand the application for allowance of Claims 1, 3-5, 7, 9, 12, 17-24, 29 and 30 and issuance of a patent.

Respectfully submitted,

By 
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Reg. No. 42,552

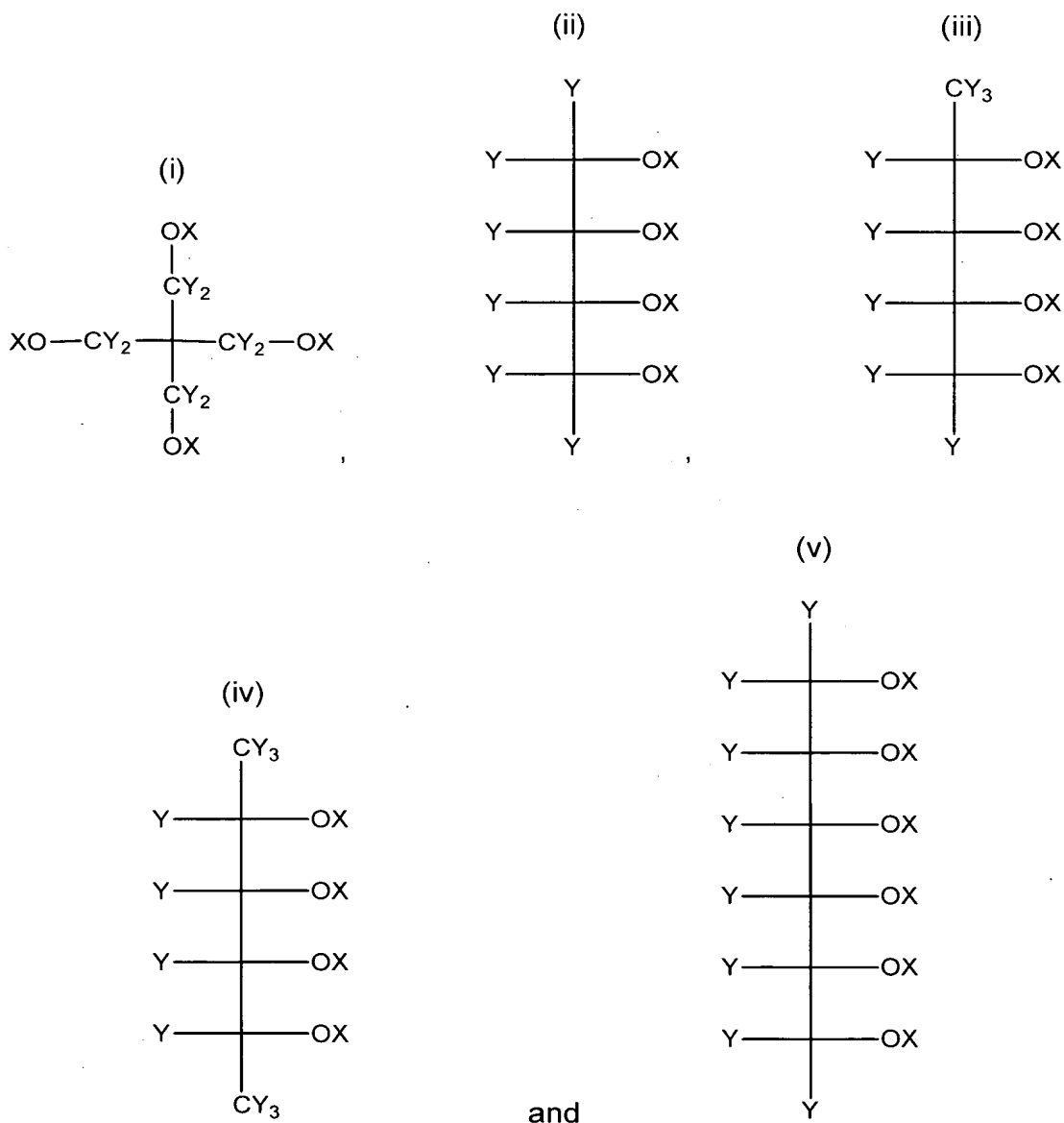
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APPENDIX - CLAIMS ON APPEAL

Claim 1. Thermoplastic polymer mixtures comprising:

- (a) at least one polycarbonate selected from the group consisting of copolymers of bisphenol A with trimethylcyclohexyl bisphenol containing 5 to 50 wt. % of trimethylcyclohexyl bisphenol; and
- (b) at least one mould release agent with at least one polyol component;

wherein said polyol component (I) of said mould release agent is selected from at least one member of the group consisting of polyols represented by the following formulas,



X independently represents a hydrogen or an aliphatic acyl residue of an aliphatic carboxylic acid, and
Y independently represents a member selected from the group consisting of hydrogen, alkyl and aryl groups,
said polyol component (I) having esterified groups and free hydroxyl groups, the number of esterified groups and free hydroxyl groups of said polyol component (I) being the same.

Claim 2. (Cancelled).

Claim 3. The thermoplastic polymer mixtures of Claim 1 wherein the aliphatic carboxylic acids are selected from C₂-C₃₀ fatty acids and mixtures thereof.

Claim 4. The thermoplastic polymer mixtures of Claim 1 wherein the polyol component (I) is present in amounts of 0.005 wt. % to 0.5 wt. %.

Claim 5. The thermoplastic polymer mixtures of Claim 1 wherein in polyol component (I), a carbon atom with a hydrogen substituent is not located immediately adjacent to a carbon atom with a hydroxyl group.

Claim 6. (Cancelled).

Claim 7. The thermoplastic polymer mixtures of Claim 1 wherein the ratio of the amount of polyol component (I) in the mould release agent to other optionally present components in the mould release agent is greater than 1:1.

Claim 8. (Cancelled).

Claim 9. The thermoplastic polymer mixtures of Claim 1 further comprising at least one additive selected from the group consisting of stabilisers, flame retardants, antistatic agents, fillers, foaming agents and colorants.

Claim 10. (Cancelled).

Claim 11. (Cancelled).

Claim 12. Moulded articles made from the thermoplastic polymer mixtures of Claim 1.

Claims 13-16. (Cancelled).

Claim 17. The thermoplastic mixtures of Claim 3 wherein the aliphatic carboxylic acids are selected from the group consisting of C₅-C₂₅ fatty acids and mixtures thereof.

Claim 18. The thermoplastic mixtures of Claim 3 wherein the aliphatic carboxylic acids are selected from the group consisting of C₈-C₂₄ fatty acids and mixtures thereof.

Claim 19. The thermoplastic mixtures of Claim 3 wherein the aliphatic carboxylic acids are selected from the group consisting of C₁₂-C₂₂ fatty acids and mixtures thereof.

Claim 20. The thermoplastic mixtures of Claim 3 wherein the aliphatic carboxylic acids are selected from the group consisting of C₁₆-C₂₀ fatty acids and mixtures thereof.

Claim 21. The thermoplastic mixtures of Claim 3 wherein the aliphatic carboxylic acids are selected from the group consisting of C₁₆-C₁₈ fatty acids and mixtures thereof.

Claim 22. The thermoplastic mixtures of Claim 4 wherein the polyol component (I) is present in amounts of 0.01 wt. % to 0.2 wt. %.

Claim 23. The thermoplastic mixtures of Claim 4 wherein the polyol component (I) is present in amounts of 0.015 wt. % to 0.1 wt. %.

Claim 24. The thermoplastic mixtures of Claim 4 wherein the polyol component (I) is present in amounts of 0.02 wt. % to 0.08 wt. %.

Claims 25-27. (Cancelled).

Claim 28. (Cancelled).

Claim 29. The moulded articles of Claim 12 wherein said moulded articles are selected from the group consisting of compact discs and DVDs.

Claim 30. The thermoplastic polymer mixture of Claim 1 wherein Y is selected independently from the group consisting of hydrogen, methyl, ethyl, propyl, butyl and phenyl groups.



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TITLE: NOVEL POLYMER BLENDS WITH)
MOULD-RELEASE AGENTS)
)

LETTER

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed herewith are three copies of an Appeal Brief in the matter of the subject Appeal. Please charge the fee for filing the Brief, \$330.00, to our Deposit Account Number 13-3848.

Respectfully submitted

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James R. Franks
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June 10, 2004
Date